

INDUSTRIAL HYGIENE INFORMATION AND REGULATORY ACTIONS SUMMARY March 2001

REGULATORY ACTIONS

None

OSHA ACTIVITIES

OSHA Budget for 2002 Proposed

OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION

Budget Authority (Dollars in Millions)

	<u>FY 2001</u>	<u>FY 2002</u>	<u>Change</u>
Safety and Health Standards	\$15.1	\$13.9	\$-1.2
Federal Enforcement	151.8	154.8	3.0
State Programs	88.4	88.1	-0.3
Technical Support	20.1	19.6	-0.5
Federal Compliance Assistance	55.8	57.2	1.4
State Consultation Grants	48.8	48.8	0.0
Training Grants	11.2	8.2	-3.0
Safety and Health Statistics	25.6	26.3	0.7
Executive Direction and Administration	<u>8.6</u>	<u>9.0</u>	<u>0.4</u>
Total, Budget Authority	\$425.4	\$425.8	\$0.4
Full Time Equivalents *	2,386	2,292	-94

* Includes 16 reimbursable and allocated FTE.

Oversight Hearings

OSHA plans to conduct numerous oversight hearings in the coming months. They will address the OSHA enforcement policies, compliance assistance activity and the standard setting process.

OSHA's Top 10 Violations for 1999/2000

OSHA's top 10 violations are a summary of violations that occurred in those states that comply with federal OSHA requirements. Citations for states that operate their own occupational safety and health programs are not included in these statistics.

The Top General Industry Violations by Subparagraph October 1, 1999 through September 30, 2000

	Subject	Standard	Total Violations	Initial Penalty	Adjusted Penalty
1	HazCom - Written Program	1910.1200(e)(1)	2,496	\$920,224	\$310,738
2	Machine Guarding - Type of guarding	1910.212(a)(1)	1,446	\$3,390,159	\$1,096,377
3	Lockout/tagout - Written energy control procedures	1910.147(c)(4)	1,191	\$2,331,792	\$718,424
4	HazCom - Labeling Containers	1910.1200(f)(5)	1,179	\$262,257	\$129,233
5	HazCom - Employee information and training	1910.1200(h)	982	\$291,925	\$108,110
6	First aid Eye wash/emergency shower facilities not in near proximity to employees	1910.151(c)	930	\$985,898	\$393,595
7	Respiratory protection- Establish a written program	1910.134(c)(1)	896	\$453,097	\$147,472
8	HazCom-Employee information and training	1910.1200(h)(1)	890	\$365,895	\$100,274
9	Guarding floor openings, platforms, and runways	1910.23(c)(1)	837	\$1,727,894	\$494,996
10	Machine Guarding - Point of operation guarding	1910.212(a)(3)	836	\$2,414,535	\$916,198

Taken from J.J. Keller & Associates, Inc., March 2001

OSHA's Boss Selection Still Up in Air

It is still anyone's guess who will fill the vacancy left when former OSHA Administrator Charles N. Jeffress departed with the Clinton administration. For the time being, Davis Layne is the acting administrator.

Revised Recordkeeping

OSHA states that the revised recordkeeping rule (29 CFR Parts 1904 and 1952) issued Jan. 19 "will produce better information about occupational injuries and recordkeeping system for employers." The final rule will not become effective until Jan. 1, 2002, but OSHA published the rule so employers will have time to learn the new requirements and to revise computer systems. Employers are responsible for adhering to the current rule. Highlights of the new recordkeeping rule:

- Rule retains its exclusion of employers with 10 or fewer employees and those in low-hazard retail, service, finance, insurance and real-estate sectors.
- Employers will be required to record cases when injured or ill employees are restricted from their "normal duties", which are defined as "work activities the employee regularly performed at least once weekly."
- The term lost workdays has been eliminated. The new focus will be on days away from work or days during which work is restricted or the worker is transferred.
- Employers will not count workdays, counting will be based on calendar days.
- The rule includes a provision for recording needlestick injuries that is consistent with the recently passed needlestick safety standard.
- Employers will be required to record standard threshold shifts in employees hearing.
- The form will also include columns dedicated to MSD cases.
- Employers will be prohibited from entering an employee's name on the OSHA Form 300 for injuries such as sexual assault, HIV infections and mental illnesses.

Copies of the rule are available at the OSHA web site at: <http://www.osha-slc.gov/recordkeeping/index.html>.

Revised Bloodborne Pathogens

OSHA estimates 800,000 US health care workers experience medical sharps injuries each year and approximately three dozen contract HIV. In response, OSHA recently issued its revisions to the bloodborne pathogens standard, 29 CFR 1910.1030.

- Employers are to solicit input from “nonmanagerial” employees who are responsible for direct patient care in identifying and choosing the devices. Employers must document that they have satisfied this obligation.
- Employers should be aware of the newly added obligations to monitor changes in technology and document, at least annually, consideration and implementation of commercially available and effective medical devices.
- Employers must maintain a log of injuries resulting from contaminated sharps. Records must be maintained in a manner that protects the confidentiality of the injured employee and contain information about the type and brand of device involved in the incident, the department or work area where the exposure occurred and an explanation of how the incident occurred.
- Additional definitions have been included for “sharps with engineered injury protections” (devices with built-in safety features) and “needleless systems” (mechanisms that effectively reduce the risks of an exposure incident or device that do not use needles for the collection of body fluids, administration of medications or fluids, or similar procedures).
- The updated rules become effective April 18, 2001.

Refer to <http://www.occupationalhazards.com/> or <http://www.osha-slc.gov/needlesticks/index.html> for further information.

CONGRESSIONAL ACTIONS OF INTEREST

President Signs Ergonomic Repeal; Commissioner Rescinds State Plan

Senate, House and President Bush repeal the Ergonomic Standard. After President Bush ordered a 60-day review of the standard upon taking office, the Senate and House implemented the Congressional Review Act, which allows Congress to withdraw regulations within 60 legislative days of final issuance.

North Carolina labor Commissioner Cherie K. Berry rescinded that state’s adoption of the federal standard, which it adopted the very day OSHA published its rule. Berry stated that she was against the ergonomics standard as it presently read. She said “those are real problems and need to be addressed...the present standards would not protect workers or help employers.”

Ergonomics Standard

"The safety and health of our Nation's workforce is a priority for my administration. Together we will pursue a comprehensive approach to ergonomics that addresses the concerns surrounding the ergonomics rule repealed today. We will work with the Congress, the business community, and our Nation's workers to address this important issue." President George W. Bush March 20, 2001

With these words, President Bush signed a joint resolution of Congress disapproving OSHA's ergonomics standard and, at the same time, pledging to find a solution to ergonomic-related problems affecting the nation's workforce. OSHA issued the ergonomics program standard on November 14, 2000. It took effect January 16, 2001. Congress acted under authority of the Congressional Review Act of 1996. The standard is no longer in effect.

Secretary of Labor Elaine L. Chao also underscored the importance of addressing ergonomic issues in the workplace and identifying areas of common ground in seeking a comprehensive approach.

Source OSHA Week, March 26

Bush Selects Another Asian-American Woman for Top DOL Post

President Bush has nominated Shinae Chun to be director of the Women's Bureau at the U.S. Department of Labor. Pending confirmation, she becomes the second Asian-American woman chosen for a top position within DOL, after Labor Secretary Elaine Chao.

Chun is Managing Director of ITR Corporation in Chicago and was director of the Illinois Department of Labor from 1991 to 1999. She holds degrees from Ewha Women's University in Seoul, Korea, and Northwestern University in Evanston, Illinois. Congress established the bureau she would take over in 1920 to work on behalf of America's working women. It was instrumental in securing passage of the Fair Labor Standards Act in 1938, the law that set minimum wages and maximum working hours, according to DOL's history of the bureau.

Labor's Chao Calls for Summit of Business, Labor, Government

Labor Secretary Elaine L. Chao took the first steps toward her pledge to have a "workplace of the future" when she announced a summit of business, labor and government leaders and the creation of a new Office of the 21st Century Workforce. Chao has stated "our mission is to provide hope by equipping every worker to have as fulfilling and financially rewarding career as they aspire to have." Other challenges Chao talked about are the "incredible shrinking workforce," opening doors to the disabled and the aging population and a renewed emphasis on prevention of workplace accidents in addition to after-the-fact enforcement.

Source OSHA Week, March 12

Bush Reveals Vision of Government's Role in Worker Safety

The American Society of Safety Engineers (ASSE) has released a letter from President Bush that states his views on OSHA and occupational safety and health. Bush stated that "promoting workplace safety is a common goal that unites both employers and employees."

On enforcement and recordkeeping:

"While the enforcement of health and safety regulations must remain a tool of OSHA, as president, I will place a renewed focus on education, consultation, training and outreach - particularly for small businesses - to be proactive and help prevent workplace accidents from occurring. OSHA worksite inspections should continue, however, OSHA should move away from citing small businesses for unimportant paperwork violations and, focus on serious violations that cause harm to workers."

On OSHA Reform:

"I believe the federal government has failed to adapt to the demands of the new economy and a new century. Unlike American businesses and many state and local governments, the federal government functions on an outdated, centralized, one-size-fits-all hierarchical model. The previous administration's reinventing government initiative has too often focused on oiling this old machinery rather than transforming it. My getting results from government initiative will reform and modernize government based on three key objectives. To make government 1) citizen-centered, not bureaucracy-centered; 2) results-oriented, not process-oriented and 3) market-based, actively promoting - not stifling - innovation and competition. In my administration, I want federal agencies, including OSHA, to see American citizens and businesses as partners not resent them as rivals."

TECHNICAL ARTICLES OF INTEREST

Safety Council Extends Comment Period on Newest Draft of Voluntary Ergonomics Standard

The National Safety Council (NSC) March 12 announced that it has extended the public comment period on a proposed voluntary consensus standard on ergonomics.

The standard would serve as a voluntary guide for occupational safety and health professionals responsible for protecting workers from hazards that can lead to musculoskeletal disorders, according to the NSC. The NSC accepted comments until April 13; the original public comment period was set to close March 13.

The Accredited Standards Committee on Control of Cumulative Trauma Disorders (Z-365) developed the proposed standard, *Management of Work-Related Musculoskeletal Disorders*.

If approved, the American National Standards Institute (ANSI) plans to integrate the voluntary ergonomics standard into its set of voluntary standards.

Terry Miller, an NSC spokesman, said the decision to extend the comment period was not related to congressional action to overturn the Labor Department rule governing ergonomic hazards.

A voluntary standard is an important first step for many employers that lack an ergonomics program. With the repeal of the Ergonomics Standard, this voluntary standard becomes more important. Miller said the next step will be for the committee to review the comments and make changes as needed to the draft, adding that there is no set time frame for when the committee will offer a final version of the voluntary standard.

A redrafted standard would then also have to undergo a new round of comments, Miller said. However, proponents of even a voluntary standard have found that reaching common ground on such a controversial subject can be fraught with hurdles. Drafting the document took eight years, and it took another two years to respond to about 150 comments submitted to that initial version.

Business groups have complained that the draft downplayed programs already put in place by employers, while unions called for more employee involvement under the draft standard. Others said the voluntary document was too broad and did not address non work-related injuries appropriately.

To obtain copies of the latest draft of the voluntary standard, along with instructions for filing public comments, contact the National Safety Council; (800) 621-7619.

Former OSHA Ergonomist Predicts No Action on New Rulemaking for Years

David Cochran, keynote speaker at the 4th Annual Applied Ergonomics Conference, once led the agency's ergonomics standard team. Another regulation will not emerge any time soon because rulemaking is a long process, Cochran said.

Cochran, currently a professor of industrial engineering at the University of Nebraska, disputed claims by opponents of the regulation that the rule was rushed. "We worked our fannies off for three years," many times at nights and over weekends, he reported. "To say it was a last-minute effort was not accurate," Cochran said. The purpose of the ergonomics regulation was to reduce the number and severity of musculoskeletal disorders caused by exposure to risk factors in the workplace, Cochran said. Cochran stressed that his address, "Ergonomics - Where Do We Go from Here?" was his opinion, and did not reflect OSHA policy.

If OSHA proposes another rule, "Congress may get into the act again," Cochran warned. Although it would take a long time to get another rulemaking under way, Cochran said it is also possible that a new rulemaking will not happen at all. He assured the audience that the agency still can cite ergonomics violations under the general duty clause of the Occupational Safety and Health Act. However, he cautioned that the agency may have lost the will to enforce violations through the general duty clause, which is a cumbersome and lengthy process. In the past, OSHA officials have said that pursuing a regulation made more sense than using the general duty clause. Citing under the authority of the OSH Act is difficult for a variety of reasons.

Some employers need regulating. "Nobody likes regulation. I don't like it," Cochran said. He admitted that not all employers need regulation; in fact, he said, few do. However, those in need of regulation need it badly, Cochran said. There is a problem because there is no good alternative to a rulemaking to control those employers who abuse their workers.

Cochran attributed part of the rule's downfall to fear. "Fear of the unknown is powerful, and fear of Washington is real," Cochran said. Although many opponents to the ergonomics standard were concerned about its potential cost, particularly to small businesses, Cochran said he believes that ergonomics is good for a business no matter what size it is.

"We know programs work and we know [ergonomics is] profitable," Cochran said. Ergonomics programs open doors to new possibilities. Cochran also said there are limits to what materials, designs, methods, and people can do. It used to be that people wanted to work smarter, not harder. Now it seems that people just try to work harder, he said. "Sooner or later you have a problem. People wear out. If you drive your car flat out, it's going to wear out faster. Why do we think people are different"? he asked.

Employers Can Take Action to Reduce Low Back Disability, Keynote Speaker Says

Low back pain is a common affliction. As people age, more and more individuals will experience it, Stover H. Snook, ergonomics lecturer in the Department of Environmental Health at the Harvard School of Public Health, predicted. At any given time, 15 to 20 percent of adults are experiencing low back symptoms, 35 percent will have had pain in the last month, and 50 percent of adults have felt some pain in the last year, Snook said.

"The good news is we do know how to reduce low back disability," Snook said. Low back pain is the symptom and disability is the lost time or restricted duty resulting from low back pain, Snook said. There seems to be a direct link between heavy manual work and disability, Snook said. Contrary to popular opinion, most people continue to work with low back pain, if the job allows it. The actual number of

people out on disability because of low back pain is low, however, the cost of treatment is "staggering," costing billions of dollars each year, he said.

Snook advocated designing jobs to accommodate people with low back pain, especially when dealing with aging populations. He noted that jobs stay the same while workers age. Snook said research has found that excessive bending is not good and increases the chance of low back disorders. Most people have difficulty handling heavy weight especially when forward bending is involved. There are two basic ergonomic principles to use: get items off the floor, and reduce the forward reaching movements and the weight of objects.

Ergonomic solutions include using such items as lift tables, carts, and hoists, Snook said. In addition, "sit/stand" stations are helpful and allow workers to change from sitting to standing posture at their own discretion. "We can't stop low back pain because we can't control aging or genetics, but we can control the job," Snook said. According to Snook, no one knows the cause for up to 85 percent of low back pain. In most cases, low back pain is not the result of an injury. But there are risk factors that increase the likelihood of such pain, including increasing age, prior episodes, occupation, time of day, genetics, obesity, and smoking, Snook said.

Ten Steps to Welding Safety

The welding process is a complicated one and so is evaluating it; use the following checklist to aid your welding evaluations.

1. Training, knowledge, and experience

Yes	No	Do all welders have training in company safety policies on your job site?
Yes	No	Are all welders trained and qualified to perform the tasks assigned?
Yes	No	Are they knowledgeable about the equipment and the process being performed?
Yes	No	Are basic hazards and corrective measures explained to welders before work begins (including associated programs where needed, such as PPE, confined space, and fire protection)?
Yes	No	Is adequate documentation maintained for crewmembers to demonstrate training has been conducted in required areas, such as lockout/tagout and confined spaces?
Yes	No	Is training conducted on electrical safety where necessary for all crew members, on topics such as bonding and grounding?
Yes	No	Are welding crewmembers trained on Hazard Communication, and are MSDS sheets available?

2. Protective clothing and PPE

Yes	No	Are welders advised as to appropriate protective clothing to be worn for skin protection on the job site to prevent burns? Do they wear it?
Yes	No	Are crew observed wearing dry, hole-free gloves? Do they change as necessary in order to keep their hands dry and protected?
Yes	No	Are welders instructed and evaluated on their need for hearing protection on this job site?
Yes	No	Do they indeed use hearing protection where required?

3. Equipment issues

Yes	No	Are welders advised how to report problems they note with equipment or work tasks?
Yes	No	Do they know to whom to report such situations?
Yes	No	Is insulation on cables maintained in good order, and are equipment and cables replaced if they are damaged or missing?
Yes	No	Are cylinders regularly inspected for defects, good working order of valves, and no leakage?
Yes	No	Is only approved and tested equipment used, such as the torches, regulators, acetylene generators, and manifolds?

4. Hazard assessment

Yes	No	Are crewmembers exposed to confined spaces on this job site?
Yes	No	Has each welding crewmember been specifically trained on confined spaces, recognition, and abatement, and has this been documented?
Yes	No	Does each crewmember know about atmospheric testing and the hazards of fumes and gases in connection with welding in confined spaces?
Yes	No	Are dangerous combinations of base metals, coatings, and galvanizing considered on this job site in connection with the specific tasks being done?
Yes	No	Do all crewmembers understand the hazards of engine-driven equipment on the job site and ways to eliminate these hazards?
Yes	No	Are crewmembers skilled in lockout/tagout, and do they have lockout/tagout equipment to use if they need it?

5. Inspections

Yes	No	Is equipment being used inspected and documented on a regular basis by qualified personnel to ensure compliance and good working order for all crewmembers? Is a file maintained on the jobsite of problems?
Yes	No	Are welders required to inspect equipment prior to work start to ensure good operating order in cables, electrodes, or other necessary equipment?

6. Emergency procedures

Yes	No	Are basic first aid supplies available to the crew in the event of an on-the-job injury? Is someone knowledgeable in basic first aid?
Yes	No	Are emergency procedures well known on the site, and do welding crews know how to call for assistance?
Yes	No	Are adequate fire extinguishers available, and do welding crews know how to use fire extinguishing equipment?
Yes	No	Do employees know how and when to report an on-the-job injury?

7. Ventilation

Yes	No	Are crewmembers provided mechanical aids for forced air ventilation where required?
Yes	No	Are they skilled and knowledgeable about setting up and using this equipment?

8. Ergonomics

Yes	No	Are protective measures taken to avoid unnecessary ergonomic work stances, extended reaches, or other awkward postures when possible for welders, such as overhead working for long periods?
Yes	No	Are crewmembers trained on material handling and proper movement of equipment, in order to reduce on-the-job lifting and motion injuries?

9. Cleanup

Yes	No	Are welding crewmembers trained in using good housekeeping methods in order to eliminate and unnecessary flammable debris or other flammables on site?
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10. Security and weather precautions

Yes	No	Is there a basic sign-in procedure for welders, in order to maintain safety and security on the site? (Remember, welders frequently work in isolated or unseen locations.)
Yes	No	Is there a plan in place for dealing with temperature extremes or other weather-related situations?

Refer to <http://www.ohsonline.com/> for further information.

Treasury Secretary Urges Employers to Work toward Eliminating Employee Injuries

U.S. companies could dramatically reduce workplace injuries by insisting all managers rethink the prevalent notion that some level of employee injury is acceptable, and instead setting a goal of zero injuries.

Paul O'Neill, who was chairman and CEO of Alcoa before taking the Treasury post in January, said the nation's employers should set dramatic goals for reducing injury rates. "The only legitimate goal is zero," he said. "All organizations can get to a point approaching zero.

O'Neill established a goal of zero injuries at the Treasury Department in remarks to the National Treasury Employees Union. In his address to the workplace safety summit, the secretary said Alcoa made substantial progress in reducing its lost workday rate beginning with his first months as company chairman in 1987. That year, Alcoa's annual lost workday rate was 1.86 per 100 workers, substantially better than the nation's average of about 5 per 100 that year. O'Neill said he then announced that the new goal was to be zero lost workday cases. More than 13 years later, the company's rate is down to 0.14 per 100.

Unusual Approaches

Alcoa was able to make such dramatic gains in its severe injury rate not only by setting hard-to-reach goals but also by taking some unusual steps to ensure that management and workers "bought" into the effort, O'Neill said. For example, he instructed managers to complete repairs and do other safety improvements without having to justify their costs. "And workers were told, 'here's my phone number' and workers could call me" to report any hazards that were not being addressed, he said. "One of the things you have to do is say to everyone in the organization, that if something has to be done" it will be, he said. "I went to managers and said, there are no excuses anymore."

"In most organizations, we see life as a series of trade-offs, and believe in the law of diminishing returns" in exchange for a sustained campaign to cut injuries, the secretary said. Many companies set a goal of reducing lost workday case rates to perhaps 2.0 per 100, with the assumption that any improvement beyond that figure will be slight and not worth the additional resources. "You start to think you can't afford to get better" because the resources required provide diminishing returns, he said. "But you have to say, safety is not a value. Safety is a precondition" for a company to operate, he said.

"Most of what we need to do to get to zero [employee injuries] is not about huge investments, it's mostly about process and commitment--and constant learning," he said.

HEALTH CARE WORKERS

Ninety-two percent of the 4.3 million nurses and nursing aides in the U.S. are female. In addition to being at risk for incidents of musculoskeletal disorders, workplace violence, and exposure to hazardous substances, health care workers face other hazards including latex allergy and needlestick injuries. NIOSH has established a new initiative to study the health and safety of health care workers.

Needlestick Injuries

Between 600,000-800,000 needlestick injuries occur annually in health care settings, mostly involving nurses. These injuries pose both physical and emotional threats to health care workers, as serious infections from bloodborne pathogens (such as hepatitis B virus, hepatitis C virus, and human immunodeficiency virus [HIV]) may result.

Latex Allergy

Health care workers may have an increased risk for developing latex allergy due to their use of latex gloves. Among health care workers who experience frequent latex exposure, 8-12% develop sensitivity to latex. Latex sensitivity may lead to symptoms of latex allergy, such as skin rashes; hives; nasal, eye, or sinus symptoms; asthma; and (rarely) shock.

Networking with Fall Prevention Experts

Good design can eliminate or minimize nearly all fall hazards. Safety directors and supervisors should look for solutions that will actually prevent a fall in a manner that requires little or no user expertise or supervision. An example of this is a design of a milk tanker truck that has all operating controls and inspection openings at ground level rather than on top of the tanker or the design of a lift up handrail on top of the tanker that deploys from ground level by the action of the access ladder. The action of the driver climbing onto the ladder automatically erects the rails, so the fall hazard is almost totally eliminated.

Other engineering designs to decrease falls are to bring the work down to ground level. An example of this is that some builders in Australia are building roofs on the ground then lifting the nearly completed structure into place by crane. Advantages of this are that the job can be completed more quickly; workers are not as greatly affected by weather nor require as much handling of materials and it raises worker efficiency because of lower risks and fewer access problems. Most importantly, it reduces the exposure of falls.

Other efficiencies to decrease falls are:

- Larger-volume gutters and downpipes may remove or lessen the need to go to the roof to clean gutters.
- Moving the gutters to a location away from the edge may dramatically reduce exposure.
- Removing the gutters altogether, and having a smooth transition from roof to wall with gutters at ground level, may eliminate the fall hazards
- Condensing a roof-mounted plant to one central location away from the building's edges may allow a dedicated access way that will keep workers enclosed and safe. This could lead to longer duct runs, but the long-term savings, if properly managed, often shows this to be an economic solution.
- Where the roof-mounted vents are used, it may be possible to mount the fan at a lower level where it can be serviced in greater safety.

Management can reduce the risk of falls by implementing controls and programs. For example, General Motors (GM) adopted fall protection above 6 feet, in which no worker climbs on a ladder above 6 feet. The plant has picking wagons with permanent staircases attached on the back of the wagons for work performed above 6 feet. GM is building new facilities throughout the country incorporating the use of picking wagons.

Another way to reduce the risk is to analyze and assess risk, and control risk levels through the use of the hierarchy of controls.

- Identify Hazard
- Assess level of risk of the hazard
- Control the risk (using hierarchy of controls)
 - Eliminate or Substitute (remove or mitigate with a passive solution)
 - Engineering Controls (this could be a design change or use of equipment, such as boom lift or rope access)
 - Administrative Controls (JSAs, work procedures, restricted access, additional supervision)
 - Personal Protective Equipment (fall arrest equipment)
- Review and Evaluate (establish whether the solution is effective and check for new hazards as a result of the solution).

Once the hazards have been identified, a fall prevention system process may start. Bud Kinney, contractor safety coordinator for an Exxon Mobil refinery in Bayview, Texas, summarized a systematic fall prevention systems process. "Be proactive, not reactive," Kinney said. "It's a quality process circle. We started with the audit process. We started looking only at fall exposures. It was a real eye opener--we were surprised that we had gaps in all our processes."

"Don't get hung up in this processes," he advised. "The reason for the audit is it measures your program's effectiveness. Do all workers understand? It identifies gaps in the systems. It can help pinpoint specific deficiencies."

Step One: ESTABLISH policies and rules

The policy needs to be the same for owners, employees, and contractors. It should be a user-friendly policy with a strong focus on compliance. The refinery has a 6-foot fall protection limit.

Step Two: AUDIT

Use experienced personnel for an audit team to conduct a walk-through and to document fall hazard analysis. Team members should be familiar with both OSHA and company requirements. They must have field experience. If necessary, get third-party assistance. Ideally, the audit team should include a qualified engineer.

The audit process includes an office visit where auditors review training records, trainer qualification, and training records. Next, a field visit includes job site observations, employee interviews, equipment inspections, permanent installations, and temporary scaffolds.

Auditing tools include developing auditing forms that are tailored to fit the facility's specific needs.

Step Three: PLAN AND CHOOSE the appropriate hazard control measures, prevention, or protection

Another company's comptroller suggests if your plant cannot afford all the changes at once, then prioritize them. Perform improvements over time, but get them in the budget. Over time, you will be creating a safe plant. This is practical advice for capital equipment, but there was a general warning from engineers at the symposium that many plants have employees tying off on anchorage points that would not support falls. Engineers should look at these immediately to reduce fall hazards.

Step Four: IMPLEMENT prevention, elimination, and engineering controls

Step Five: SELECT personal fall protection equipment systems

Step Six: CONDUCT orientations and training programs

Step Seven: INITIATE observation and enforcement

Step Eight: BEGIN inspection and maintenance

Step Nine: RE-AUDIT your program

These nine steps form a quality process circle. After the audit, analyze the data and communicate the findings, Kinney said. Request follow-up for deficiencies, revise your policy and procedures for the overall system if necessary, and retrain if necessary. Design facility improvements.

Refer to <http://www.ohsonline.com/> for further information.

NIOSH Recommends Strategic Precautions Against Fatal Falls

Once the third leading cause of work-related death across all industries, falls have surpassed workplace homicide to become the second leading cause of death after motor vehicle crashes. Last year alone, some 717 workers died of injuries caused by falls from ladders, scaffolds, buildings, or other elevations. That equaled almost two deaths per day on average.

In the construction industry, falls lead all other causes of occupational death, but the risk is present in virtually every kind of workplace. It may occur in many forms, from standing on a ladder to changing a light bulb, to connecting bolts on steel girders hundreds of feet above the ground.

In a new report, the U.S. Centers for Disease Control and Prevention's (CDC) National Institute for Occupational Safety and Health (NIOSH) recommend strategic precautions to prevent fatal, work-related falls. "Worker Deaths by Falls: A Summary of Surveillance Findings and Investigative Case Reports," DHHS (NIOSH) Publication No. 2000-116, provides a practical on-site resource for assessing individual workplaces, identifying risk factors for falls, and developing effective preventive measures.

Employers should design and use comprehensive fall-protection programs to reduce the risk of serious or fatal injuries, NIOSH recommends. At a minimum, employers should 1) incorporate safety in work planning, 2) identify all fall hazards at a work site, 3) conduct safety inspections regularly, 4) train employees in recognizing and avoiding unsafe conditions, and 5) provide employees with appropriate protective equipment and train them in its use.

As tools for such programs, the new report includes:

- Extensive recommendations for preventing falls from ladders, scaffolds, buildings, forklifts and stationary vehicle, and trees. The recommendations reflect current government and industry standards, as well as NIOSH research findings.
- All 90 case reports that NIOSH has issued from investigations of fatal job-related falls under its Fatality Assessment and Control Evaluation program.

Covering a wide range of work activities, these findings and recommendations will be useful to employers and workers in identifying and reducing risks in similar situations.

Publication No. 2000-116, "Worker Deaths by Falls: A Summary of Surveillance Findings and Investigative Case Reports" is available at <http://www.cdc.gov/niosh/00-116pd.html> or by calling the NIOSH toll-free information number, 1-800-35-NIOSH (1-800-356-4674). Information on other NIOSH research is available by calling the information number or by visiting NIOSH on the World Wide Web at www.cdc.gov/niosh.

NIOSH Says Work-related Hearing Loss Research Priority

Work-related hearing loss continues to be a critical workplace safety and health issue.

The National Institute for Occupational Safety and Health (NIOSH) has named hearing loss one of the 21 priority areas for research in the next century.

According to a new fact sheet by NIOSH, noise-induced hearing loss is 100 percent preventable but once acquired, hearing loss is permanent and irreversible.

Approximately 30 million workers are exposed to hazardous noise on the job and an additional 9 million are at risk for hearing loss from other agents such as solvents and metals, says NIOSH.

While any worker can be at risk for noise-induced hearing loss in the workplace, workers in many industries have higher exposure to dangerous levels of noise.

NIOSH notes that industries with high number of exposed workers include: agriculture; mining; construction; manufacturing; utilities; transportation and military.

According to NIOSH, there is no comprehensive data on the economic impact of hearing loss, however the institute provides localized examples as an indication of the broader economic burden.

For example, in Washington State, workers' compensation disability settlements for hearing-related conditions cost \$4.8 million in 1999, not including medical costs.

"When applied to the national workforce, occupational hearing loss costs an estimated \$242.4 million per year in disability alone," says NIOSH.

NIOSH says the best way to reduce the risk of noise-induced hearing loss and the associated compensation cost is through prevention.

According to NIOSH, prevention methods include:

- Removing hazardous noise from the workplace through engineering controls (i.e. installing a muffler or an acoustic barrier) is the most effective way to prevent noise-induced hearing loss.
- Using hearing protectors such as earplugs and earmuffs when feasible to otherwise reduce noise to a safe level.
- Implementing a strong hearing loss prevention program that includes noise assessments, engineering controls, audiometric monitoring of workers' hearing, appropriate use of hearing protectors, worker education and program evaluation.

For more information on occupational hearing loss, visit the NIOSH Web site at www.cdc.gov/niosh/01-103.html.

INTERNET NEWS

Website Focuses on Safety Management

J.J. Keller & Associates has launched KellerOnline, a website designed as a safety management tool. The site integrates regulations generated by federal and state governments with interactive tools, including assistance from the company's staff of regulatory consultants. Featured are software programs for determining correct facility markings, checking the regulatory status of chemicals and preparing training materials, written safety plans and safety audits. To evaluate the site service, go to <http://www.kelleronline.com/>

INDUSTRIAL HYGIENE PROFESSIONAL NEWS

The National Research Council has published volume one of *Acute Exposure Guideline Levels for Selected Airborne Chemicals*. These AEGLs are intended for use by emergency personnel in case of fire, spill, explosion or other accident causing release of industrial chemicals or pesticides. Three levels are set for each chemical: AEGL-1, the level at which effects are reversible and nondisabling; AEGL-2, the level at which effects are disabling and irreversible; and AEGL-3, the level at which death is expected. The EPA plans to adopt the values for use in risk management plans required under the Clean Air Act. The book is available online at <http://books.nap.edu/catalog/10043.html>

ASHRE Proposes Specific Locations for Outdoor Air Intakes

The American Society of Heating, Refrigeration, and Air-Conditioning Engineers, has specified requirements for the location of outdoor air intakes in a proposed addendum to ASHRAE's Standard 62-1999, *Ventilation for Acceptable Indoor Air*

Quality. Minimum separation distance requirements between common outdoor contaminant sources, such as exhaust vents, loading docks, and outdoor air intakes are specified in addendum aa. The addendum also sets requirements intended to limit rain intrusion and entrainment and for bird screening. Addendum, r, addresses outdoor air quality assessment and air cleaning requirements. The addendum requires outdoor air quality assessment and requires particle filtration when the outdoor particle concentration is high. This addendum does not require air cleaning for other gaseous contaminants; air-cleaning requirements for ozone are addressed in proposed addendum z.

Refer to <http://www.ohsonline.com/> for further information.

PUBLICATIONS

Make the Case for Hand Protection

The Personal Protective Equipment (PPE) standard, 29 CFR 1910.132, has general requirements that apply to all categories of PPE. Concerning hand protection, employers are required to conduct a hazard assessment of the workplace, identifying any tasks that require gloves or similar kinds of protection. When conducting a hazard assessment look for:

- Sources of cuts
- Pinch points in machine guards
- Potential sources of laceration, injury or amputation
- Conveyor belts
- Rolling belts
- Hand tools
- Power tools
- Combinations of factors, extreme cold or hot temperatures
- Work with oil or lubricants
- Lighting and fatigue

Management obligations under the PPE standard are:

- Select hand protection that will protect employees from hazards identified in assessment
- Ensure that employees use the hand protection
- Explain to employees why certain hand protection is used for certain tasks;
- Make sure gloves fit (suppliers of PPE for unusually small or large workers can be found more easily than in the past over the Internet)
- Replace defective and damaged hand protection, and ensure workers don't use damage or defective gloves
- Train employees about hand protection, including what gloves are needed, when they are needed and how to put them on, take them off, adjust them and wear them properly; the limits of hand protection; and the proper care, maintenance, useful life and disposal of gloves.

ANSI/ISEA 105-2000, *American National Standard for Hand Protection Selection Criteria*, provides guidance for selecting the correct gloves that will protect workers and assist employers in complying with OSHA regulation. The new standard provides a consistent numeric scale method for manufacturers to rate their products against certain contaminants and exposures. Glove performance and pass/fail criteria are included for the following hazardous exposures: cut, puncture and abrasion resistance, protection from cold; chemical permeation and degradation; detection of holes; and heat and flame resistance. The standard also includes reference information on special considerations such as biological, electrical protection and radiation hazards.

Order the standard from ISEA by downloading an order form from <http://www.safetycentral.org/> or by calling (703) 535-1695.

Refer to <http://www.occupationalhazards.com/> for further information.

Shortcuts: The Savings May be Costly

For every one injury caused by an unsafe condition, there are six injuries caused by committing an unsafe act. An unsafe condition is one in which “an individual does not have either the knowledge or the control over existing circumstances that may be unsafe, that would otherwise suggest s/he would not perform the action.” An unsafe act is “an action taken by an individual who has both knowledge and control of an existing unsafe condition or action, but chooses to perform the action or ignore the condition.” When performing an unsafe act, the worker is generally seeking to take a “shortcut” - an action the worker assumes will save him/her time and/or effort, at the risk of being injured.

There are multiple “excuses” for why a worker would knowingly place his/her life at risk, this article focuses on how costly such an action or attitude can be to the worker. Besides the cost to the company, such as medical expenses, lost production, employee replacement, higher compensation and premium costs the injured worker’s cost is a quality of life issue. If a worker knowingly performs an action in direct violation of a safety standard or policy, the worker’s compensation carrier has the right to deny the claim. This causes the incurred medical costs to fall back on the worker’s health insurance carrier. Some carriers are now denying the claim because it was an injury occurring at work, rather than an injury or illness away from work. This causes the worker to pay all financial burdens. Other costs to the worker are pain and suffering from the injury, embarrassment with family and coworkers, peer pressure to heal and recover, and disruption in family lifestyle.

Employers and employees need to work together to eliminate unsafe actions through observations and feedback, review and correct processes and procedures, ensuring proper tools and training, make sure those tools are available, and ensuring appropriate PPE is identified, available in convenient locations and worn for

assigned tasks. Employers must ensure the workers that they are supported and encourage to make the right choices all of the time.

JUST THE FACTS

Federal Compensation Costs Rise

Costs under the federal government's workers compensation program for injured workers increased by \$52 million in 1999, according to a report issued by the Department of Labor. Costs associated with the Federal Employee's Compensation Act were \$2.076 billion in 1999, compared to \$2.024 billion in 1998. Costs included compensation, medical and survivor benefits. The number of comp cases decreased by 2.2 percent between fiscal year 1998 and fiscal year 1999 to 54,897 workers.

NIOSH facts on Working Women's Health

As the only federal agency mandated to conduct research to prevent injuries and illnesses in the workplace, the National Institute for Occupational Safety and Health (NIOSH) has an expanding research program to address the occupational safety and health needs of working women. This fact sheet contains information on working women, the hazards they may face, and NIOSH research in areas of particular concern to women.

QUICK FACTS ABOUT WOMEN IN THE WORKFORCE

- Women currently comprise 46% of the 137 million workers in the United States, with their share of the labor force projected to reach 48% by 2008.
- In 1999, 75% (46 million) of employed women worked full-time, while 25% (16 million) worked part-time.
- In 1999, 3.7 million women held multiple jobs.
- Sixty percent of women age 16 and over were either employed or looking for work in 1999.
- Of employed women, 40% held technical, sales, and administrative support positions; 32% worked in managerial and professional specialties; and 17% worked in service occupations in 1999.

Job Stress

Stress at work is a growing problem for all workers, including women. In one survey, 60% of employed women cited stress as their number one problem at work. Furthermore, levels of stress-related illness are nearly twice as high for women as for men.

Many job conditions contribute to stress among women. Such job conditions include: heavy workload demands; little control over work; role ambiguity and conflict; job insecurity; poor relationships with coworkers and supervisors; and work that is narrow, repetitive, and monotonous. Other factors, such as sexual harassment and work and family balance issues, may also be stressors for women in the workplace.

Job stress is linked with cardiovascular disease, musculoskeletal disorders, depression, and burnout. NIOSH is conducting studies to identify workplace factors that are particularly stressful to women, and potential prevention measures.

Additional details regarding workplace issues for women are available at the NIOSH web site at <http://www.cdc.gov/niosh/01-123.html>

ARMY ITEMS OF INTEREST

None

ADMINISTRATIVE INFORMATION

This document was prepared for the U.S. Army Center for Health Promotion and Preventive Medicine (USACHP PM), Directorate of Occupational Health Sciences. The POC at the USACHPPM is Mrs. Sandra Monk; Program Manager; Industrial Hygiene Management Program; DSN: 584-2439; COM: 410. 436.2439; e-mail: Sandra.Monk@apg.amedd.army.mil.

This document summarizes information and regulatory actions that are relevant for Army Industrial Hygiene Program personnel. We distribute this summary in electronic form only. Please make it available to your staff if they do not have direct access to an electronic copy. A copy is posted on the Army IH Program Home Page (<http://chppm-www.apgea.army.mil/Armyih>). If you would like to be added to the electronic mailing list or if your e-mail address changes, please contact Tammy Budkey, e-mail: tammy.budkey@apg.amedd.army.mil; or call her at DSN: 584-2439; COM: 410.436.2439; fax: 410.436.8795.

At a minimum; we review the following publications in preparing this summary: [AIHA Journal](#); the [Synergist](#); [Today](#) (ACGIH's Newsletter); The OSHA Week; the [Federal Register](#); BNA OSHA Reporter; [Applied Occupational and Environmental Hygiene](#); The [Journal of Occupational and Environmental Medicine](#); The [Professional Safety](#); Safety and Health, [Occupational Hazards](#); [Occupational Health and Safety](#); and [Industrial Safety and Hygiene News](#). We also gather information from a variety of sources on the Internet using the Army IH Program Home Page as our gateway. (<http://chppm-www.apgea.army.mil/Armyih/>).

If you have questions or comments, please contact Jim Evenden at jevenden@lmi.org; 410.638.2081/2086 (voice) or 2093 (fax).